



**CORE organic II** 

### Nutritional characteristics of the diets in organic pig production

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### Background

**Performance of pig production** is relatively low in organic compared to conventional systems (INRA report)

- Growth rate (Sundrum et al 2000, Hansen et al 2006)
- Feed conversion (Maupertuis et al 2007, 2010)
- Littersize at weaning (review: Prunier et al 2013)

**Negative impact on:**

- Economic return
- Environmental balance

 Prunier et al, EAAP 2014 



### Background

**Low performance due to:**

- Nutritional imbalance especially for essential amino acids (Sundrum et al 2000)
- ...



### Aims

- Improve knowledge of the feeding strategies on commercial organic pig farms across Europe, especially the diets composition
- Improve the situation in organic farms when not satisfactory

 Prunier et al, EAAP 2014 

### Material and methods



- Data collection in 75 commercial farms in 2012 within the Propig project
- Interview with farm managers on feed practices: number and composition of the diets, quantity of feed... (72 farms)
- Calculation of the nutrient content from the feed composition of each diet using Evapig® (48-53 diets according to the age of pigs)

 Prunier et al, EAAP 2014 

### Characteristics of the farm sample for feed evaluation

	Birth to Finish	Finishing	Birth + Weaning	Birth	Weaning + Finishing	
	BtF	F	BW	B	WF	Total
n farms	52	12	6	1	1	72
% farms	72.2	16.7	8.3	1.4	1.4	100



Last 3 categories grouped in one: "Other"

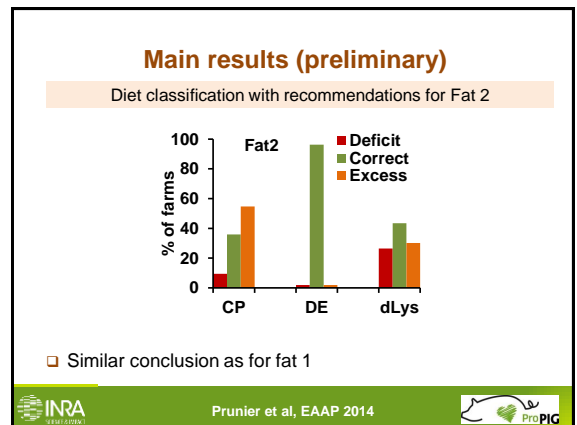
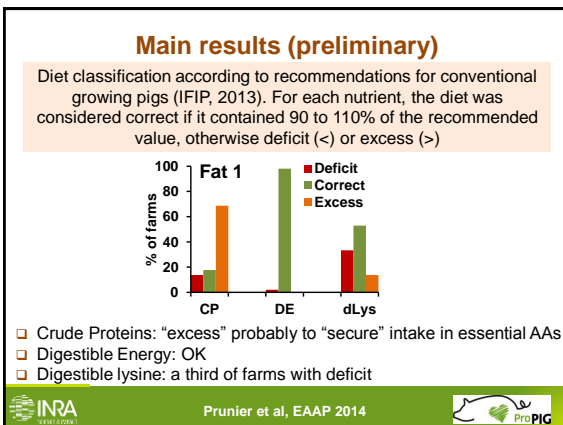
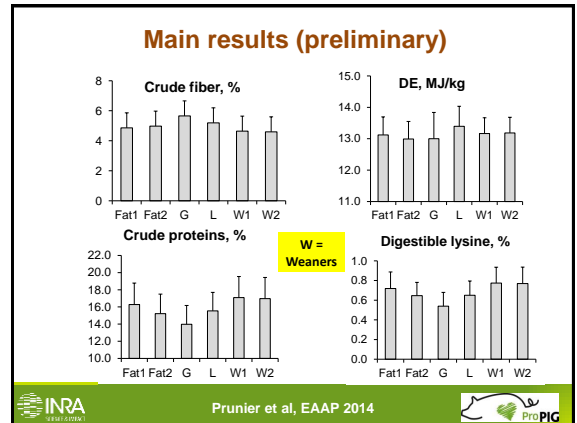
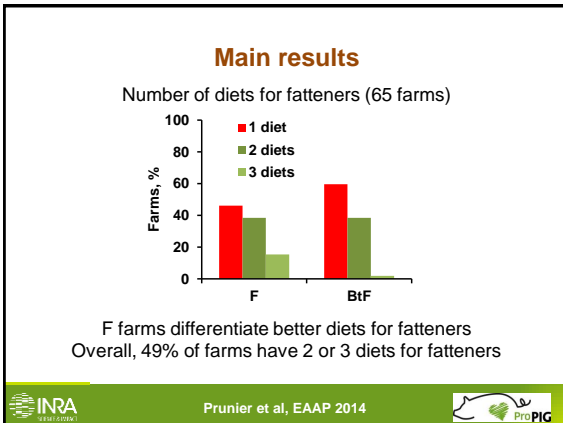
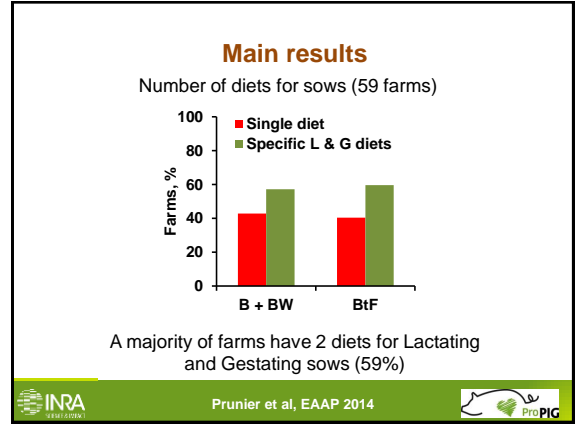
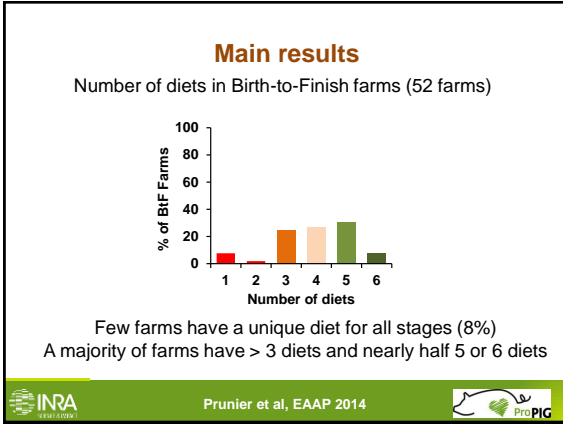
 Prunier et al, EAAP 2014 

### Number of farms per category & country

	Type of farms			Total
	BtF	F	Other	
Austria	10	3	3	16
Germany	9	4	2	15
Denmark	10	0	0	10
Switzerland	4	3	2	9
Italy	7	1	1	9
UK	7	1	0	8
France	4	0	0	4
Czech Republic	1	0	0	1

Essentially northern/central Europe

 Prunier et al, EAAP 2014 



### The work will continue

- ❑ Classify all diets with more characteristics
- ❑ Relate results to animal's performance, animal based indicators (e.g. Body Condition Score) and environmental balance
- ❑ Relate results to feed analysis when available



Prunier et al, EAAP 2014



### Main conclusions

#### Situation should be improved, main solutions are:

- ❑ Specific diets for the various stages
- ❑ Formulate better the diets according to the animals' needs
- ❑ Use the experience of existing organic farms that show that fulfilling animals needs is possible under organic constraints

#### BUT problems exist:

- ❑ Place and equipment for storing several types of diets are often lacking
- ❑ Low availability and high prices of organic ingredients rich in essential amino acids (lysine, tryptophan...)



Prunier et al, EAAP 2014



Thanks for your attention !



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